WASHINGTON UNIVERSITY

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DEPARTMENT OF CHEMISTRY

13 November 1986

Dear Eric,

Thank you for a most interesting conversation two nights ago. As a followup, I reread the most complete description of Boaltor's coining press that I know, in Schlösser's Die Münztechnik, 1884. Schösser was warden of the Hannover mint, and Boulton presses were still around when he wrote. He says that the collar moved up and down on the neck of the lower die, surrounding the blank when it was struck, then pushed down so the struck coin could be removed by a mechanical finger. Schlösser has full diagrams that I would be glad to photocopy for you it you wish.

I also endose an offprint of my 1977 BNJ paper stating my belief that Blondeau brought a parallel bar edge-marking machine to London in ca. 1651, some 35 years before Castaing.

Finally, I also am enclosing a description of the preliminary stages of the work of my graduate student Mary Striegel on the use of x-ray crystallographic residual stress measurements to distinguish cast from struck coins, to gauge the original striking pressure, and if we are really successful, to date coins via residual stress annealing rates. Her Progress Report #1, also enclosed, gives the results we obtained at Northwestern University on the coins you lent us.

Mary's work is quite promising and we hope to continue it. Included in the effort will be the production under carefully controlled conditions of phantom coins using precisely measured striking pressures to calibrate our experiments.

We are constructing a parallel bar edge-marking machine dies and a collar, and will "strike" coins with a simple geometric design using a hydraulic press, so that we know the actual striking pressures. Then we will use our residual stress measurements to deduce the striking pressures and compare the results. If they agree, our methodology will be validated. If not, we shall learn from the discrepency how to improve our measurements, and try again until we succeed.

All this will cost on the order of 5 to 10 thousand dollars. This winter I will submit grant applications to the National Endowment for the Humanities and the National Endowment for the Arts to try to obtain support for Mary's work. I would like your honest opinion of the work we have done. If you have suggestions for its improvement, we would like to incorporate them into our proposal.

Thanks for taking the time to read this.

Sincerely,

P.S. Mary's "predissertation" is fairly technical – it was directed toward her two theses committee. When I write the proposal it will be much clearer.

P.P.S. My BNJ paper explains the indented letter bases found on coins struck without a collar. There is of course much that I would write differently 10 years later. Most of it holds up all right, though. I still believe 99% of the conclusions.